

CLAIMS

What is claimed is:

1. An electronically adjustable wing mechanism for the creation of aerodynamic downward force on a motor vehicle with height and angle adjustments, the wing mechanism comprising;

a wing assembly which mounts on the exterior portion of any motor vehicle, the wing mechanism base and upper linkage supports are attached to pairs of linkages which forms a four-bar mechanism;

an interiorly mounted electric motor actuator transmits rotational motion to a worm gear box assembly mounted on the wing mechanism base whereby motion is transferred through a drive shaft directly attached into a pair of linkages;

a wing member and wing mounting brackets are attached to the upper linkage supports through holes and creates pivotal angle adjustments.
2. The wing mechanism of claim 1, wherein the wing mechanism bases, upper linkage supports and linkages forms a four-bar mechanism and rotates longitudinally in a parallelogram in order for the selective determination of the wing angle as the mechanism is raised and lowered.
3. The wing mechanism of claim 1, wherein the linkage mechanism is pivoted in a lateral direction utilizing plates and or linkages.

4. The wing mechanism of claim 1, wherein the linkage mechanism comprises of scissor type mechanism for vertical adjustment of wing mechanism.
5. The wing mechanism of claim 1, wherein the linkage mechanism comprises of an inflatable device for the vertical adjustment of the wing mechanism.
6. The wing mechanism of claim 1, wherein the linkage mechanism comprises of a rod and slide mechanism for the vertical adjustment of the wing mechanism.
7. The wing mechanism of claim 1, wherein the motor actuator is mounted exteriorly to the vehicle and has direct drive to the linkages.
8. The wing mechanism of claim 3, wherein the motor actuator is attached to the wing assembly and has corresponding movement with the member.
9. The wing mechanism of claim 1, wherein the motor actuator is hydraulically powered.
10. The wing mechanism of claim 1, wherein the motor actuator is pneumatically powered.
11. The wing mechanism of claim 1, wherein the motor actuator is magnetically powered.
12. The wing mechanism of claim 1, wherein the wing member angle can be electronically adjusted by utilizing linear motor actuators mounted within the upper linkage supports.

13. The wing mechanism of claim 1, wherein the wing member angle can be electronically adjusted by utilizing hydraulic actuators mounted within the upper linkage supports.
14. The wing mechanism of claim 1, wherein the wing member angle can be electronically adjusted by utilizing pneumatic actuators mounted within the upper linkage supports.
15. The wing mechanism of claim 1, wherein the wing member angle can be electronically adjusted by utilizing magnetic actuators mounted within the upper linkage supports.